

Current Status

Please make sure nobody else is working on porting it already. We would like to avoid doing redundant work. We ask that you communicate clearly in dev@lucenenet.apache.org that you are going to work on some part of the project. A committer will then either approve or alert you someone else is working on that part already.

Use automated tools to do the basic porting work, and then start a manual clean-up process. For automatic conversion we are using http://www.tangiblesoftware.com/Product_Details/Java_to_CSharp_Converter.html (we have licenses to give to committers) and it proved to work quite nicely. We also good things on Sharpen. Check this version out: <https://github.com/imazen/sharpen>. Pick the tool you are more comfortable with.

Conventions & standards: not too picky at this point, but we should definitely align with the common conventions in .NET:

- PascalCase and not camelCase for method names
- Properties instead of Getters / Setters of fields
- etc.
- [Coding Guidelines](#)

For reference have a look at Lucene.Net.Core, while not perfect it is starting to shape up the way we want it.

In general, prefer .NETified code over code resembling Java. Enumerators over Iterators, yields when possible, Linq, BCL data structures and so on. We are targeting .NET 4.5.1, use this fact. Sometimes you will have to resort to Java-like code to ensure compatibility; it's ok. We would rather ship fast and then iterate on improving later. [Common Java to .NET type conversion](#)

While porting tests, we don't care about all those conventions and .NETification. Porting tests should be reduced to a copy-paste procedure with minimal cleaning up procedure. We are working on tools and code helpers to help with that, see for examples see: <https://github.com/apache/lucenenet/tree/master/src/Lucene.Net.TestFramework/JavaCompatibility> (Java style methods to avoid many search-replace in porting tests), and a R# plugin that will help making some stuff auto-port when pasting <https://resharper-plugins.jetbrains.com/packages/ReSharper.ExJava/>

Code that is currently pending being ported from scratch (+ tests) == up for grabs:

- https://github.com/apache/lucene-solr/tree/lucene_solr_4_8_0/lucene/queryparser
- https://github.com/apache/lucene-solr/tree/lucene_solr_4_8_0/lucene/join
- <https://github.com/apache/lucenenet/tree/master/src/Lucene.Net.Classification> (missing tests)
- <https://github.com/apache/lucenenet/tree/master/src/Lucene.Net.Queries> (missing tests)

The spatial module (the situation there is a bit subtle, if you are interested let me know)

More analysis modules:

- <https://github.com/apache/lucene-solr/tree/trunk/lucene/analysis> (common is already mid-porting, see below)
- <https://github.com/apache/lucenenet/tree/master/src/Lucene.Net.Misc> (missing tests)
- <https://github.com/apache/lucenenet/tree/master/src/Lucene.Net.Memory> (missing tests)

Code that is ported and now pending manual cleanup, and then once its compiling porting of its tests == up for grabs:

- <https://github.com/apache/lucenenet/tree/master/src/Lucene.Net.Analysis.Common>
- <https://github.com/apache/lucenenet/tree/master/src/Lucene.Net.Suggest> (depends on Analysis.Common)

The rest is pretty much under control already

If you are more into fixing existing tests:

- First we want to get all the Core tests green. We are about 200 (out of ~2300) short of that. Since tests are using randomized testing, failures are changing.
- Start by cloning Lucene.NET locally. The set VERBOSE to false and you probably may also want to set a constant seed for working locally. See <https://github.com/apache/lucenenet/blob/master/src/Lucene.Net.TestFramework/Util/LuceneTestCase.cs#L295> and <https://github.com/apache/lucenenet/blob/master/src/Lucene.Net.TestFramework/Util/LuceneTestCase.cs#L610>
- Run, debug, iterate. When you think you fixed a bug or a test, please send a PR as fast as possible. There are multiple people working in this area, and we want to make sure your contribution doesn't go stale. Any such PR should have a descriptive name and a short description of what happened and what is your solution. There are some good past examples here: <https://github.com/apache/lucenenet/pulls?q=is%3Apr+is%3Aclosed>
- If we will have comments, we will use github's excellent interface and you will receive notifications also via this list.
- Once we got all core tests passing reliably, we will go to testing the other sub-projects. Some are already up for grabs if you want to have a stab at them.
- Other types of help: We will definitely need more help (like normalizing tabs/spaces, license headers, automating stuff, etc) but we are not there yet!